



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,963	11/18/2003	Seok-Lyul Lee	TOP 343	4614

23995 7590 05/04/2006

RABIN & Berdo, PC
1101 14TH STREET, NW
SUITE 500
WASHINGTON, DC 20005

EXAMINER

SHAPIRO, LEONID

ART UNIT	PAPER NUMBER
----------	--------------

2629

DATE MAILED: 05/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/714,963	Applicant(s) LEE ET AL.	
	Examiner Leonid Shapiro	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Song et al. (Pub. No.: US 2003/0151584 A1).

As to claim 1, Song et al. teaches a liquid crystal display panel, driven by a column inversion driving mode (See paragraph 0113), comprising:

a plurality of parallel data lines, disposed along an X-axis (See Fig.11, items DL1-DLm+1);

a plurality of parallel scan lines, disposed along a Y-axis (See Fig.11, items GL1-GLn);

a plurality of display unit pixels, each having a control transistor (Fig. 1, item TFT), a storage capacitor (Fig. 1, item Clc), a common electrode, and a pixel electrode, wherein each set of two adjacent data lines and two adjacent scan lines defines the boundary of one display unit pixel wherein each data line interlaces with both scan lines (See Fig. 11, item PXL, paragraphs 0115-0117); and

a plurality of display unit blocks disposed in array, each having display unit pixels parallel to and disposed sequentially along two adjacent data lines, wherein the display unit pixels within any display unit block between two adjacent data lines are coupled to one of the two adjacent data lines, while the display unit pixels within another adjacent display unit block between the two adjacent data lines are coupled to the other of the two adjacent data lines (See Fig. 11, items DL1-DL2, GL1-GL4, paragraph 0125).

As to claim 2, Song et al. teaches the display unit pixels within any display unit block in a row and the display unit pixels within another adjacent display unit block in the row are coupled to different data lines (See Fig. 11, items DL1-DL3, GL1-GL2, paragraph 0126).

As to claims 3, 6, 8, Song et al. teaches the common electrode and the pixel electrode make up a liquid capacitor (See paragraph 0008).

As to claim 4, Song et al. teaches a liquid crystal display panel, driven by a column inversion driving mode (See paragraph 0113), comprising:

a plurality of data lines having a first data line and a second data line (See Fig.11, items DL1-DL2);

a plurality of parallel scan lines having a first scan line and a second scan line (See Fig.11, items GL1-GL2);

a plurality of display unit pixels, each having a control transistor (Fig. 1, item TFT), a storage capacitor (Fig. 1, item Clc), a common electrode, and a pixel electrode, wherein each set of two adjacent data lines and two adjacent scan lines defines the

boundary of one display unit pixel wherein each data line interlaces with both scan lines (See Fig. 11, item PXL, paragraphs 0115-0117); and

a first display unit block disposed between the first and the second data lines (See Fig. 11, items DL1-DL2) and having the display unit pixels parallel to and disposed sequentially along the first and the second data lines (See Fig. 11, items GL1—GL2), wherein the display unit pixels are coupled to the first data line (See Fig. 11, item DL1, paragraph 0125); and

a second display unit block disposed between the first and the second data lines (See Fig. 11, items DL1-DL2), adjacent to the first display unit block (See Fig. 11, items GL2-GL4), and having the display unit pixels parallel to and disposed sequentially along the first and the second data lines, wherein the display unit pixels are coupled to the second data line (See Fig. 11, item DL2, paragraph 0125).

As to claim 5, Song et al. teaches a third data line (See Fig. 11, item DL3);

a third scan line (See Figs. 11, GL3);

a third display unit block disposed between the second and the third data lines (See Fig. 11, items DL2-DL3) and having the display unit pixels parallel to and disposed sequentially along the second and the third data lines (See Fig. 11, items DL2-DL3, GL1-GL2), wherein the display unit pixels are coupled to the second data line (See Fig. 11, item DL2); and

a fourth display unit block disposed between the second and the third data lines (See Fig. 11, items DL2-DL3), adjacent to the third display unit block, and having the display unit pixels parallel to and disposed sequentially along the second and the

Art Unit: 2629

third data lines (See Fig. 11, items DL2-DL3, GL2-GL4), wherein the display unit pixels are coupled to the third data line (See Fig. 11, item DL3).

As to claims 7, Song et al. teaches the polarity of the first display unit block (Figs. 11, DL1-DL2, GL1-GL2) is opposite that of the second display unit (Figs. 11, DL1-DL2, GL2-GL4) upon completion of the column inversion driving mode (See paragraph 0150).

As to claims 9, Song et al. teaches the polarity of the first display unit block (Figs. 11, DL1-DL2, GL1-GL2) is the same as that of the fourth display unit block (Figs. 11, DL2-DL3, GL2-GL4) and polarities of both the second display unit block (Figs. 11, DL1-DL2, GL2-GL4) and third display unit block (Figs. 11, DL2-DL3, GL1-GL2) are opposite upon completion of the column inversion driving mode (See paragraph 0150).

Telephone Inquire


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 571-272-7683. The examiner can normally be reached on 8 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2629

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LS
04.29.06



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600